

Appl. No. 10/632,456
Amdt. dated 06/29/2005
Response to Office Action of 02/25/2005

Attorney Docket No.: N1085-00039
TSMC2002-0807

AMENDMENT TO THE DRAWING

Please replace the present drawing set with FIGS. 1-8H which appear on Replacement Drawing sheets 1-20 which replace the entire set of originally filed drawings.

REMARKS/ARGUMENTS

Claims 1-41 were previously pending in this application and claims 26-41 had been previously withdrawn from consideration. Claims 26-41 are now cancelled. Claim 1 is hereby amended, claims 9 and 10 cancelled and claim 42 newly added. Applicants respectfully request 5 re-examination, reconsideration and allowance of each of pending claims 1-8, 11-25, and 42.

I. Cancellation of Claims 26-41

Responsive to the Examiner's request as stated in paragraphs 1 and 2 on page 2 of the Office Action, claims 26-41, previously withdrawn from consideration, have been cancelled.

II. Objection to the Specification

10 In the subject Office Action, specifically on page 2, third paragraph, the specification was objected to under 35 U.S.C. § 112, first paragraph and 37 C.F.R. 1.71 for not agreeing with the figures and for an inconsistency between the reference numbers used in the specification and which appeared on the original set of drawings.

15 Responsive to this objection, the corrected set of drawings is being filed herewith. The original written specification now agrees with the figures. Therefore, the objection to the specification should be withdrawn.

III. Rejection of Claims 1-25 Under 35 U.S.C. § 112

20 On page 2, fourth paragraph of the subject Office Action, claims 1-25 were rejected under 35 U.S.C. § 112, first paragraph as not being based on an adequate specification. Since the specification now complies with the requirements of 35 U.S.C. § 112, first paragraph and 37 C.F.R. 1.71, the rejection of claims 1-25 under 35 U.S.C. § 112, first paragraph, is therefore obviated. Claims 9 and 10 have been cancelled.

IV. Claim Rejections Under 35 U.S.C. § 102

25 On page 3 of the Office Action, claims 1-4, 6-9, 11 and 12 were rejected under 35 U.S.C. § 102 as unpatentable as shown by Yu '591. Also on page 3 of the subject Office Action, claims 1-3, 6, 7, 9, 11 and 12 were rejected under 35 U.S.C. § 102 as unpatentable as shown by Yu, et

al. '704. Also on page 3 of the subject Office Action, claims 1-4, 6, 7, 9, 11 and 12 were rejected under 35 U.S.C. § 102 as unpatentable as shown by Kobayashi. Applicants respectfully submit that these claim rejections are overcome for reasons set forth below.

For the claim set 1-12, claim 1 is the independent claim with the other claims depending, 5 directly or indirectly, from independent claim 1. Independent claim 1 has been amended to recite the feature that the deep wells are continuous for at least 1.5 μ m approximately from a surface of the substrate underneath the insulating layer. None of the references of record teach the deep wells having a depth of at least 1.5 micron. It is because of this increased depth of at least 1.5 μ m, that the present invention provides the advantage that eddy currents which 10 undesirably reduce Q-value performance of the inductors, are not induced along the surface as in conventional inductors having wells of lesser depth. The advantageous result of improved Q-value performance is achieved due to the claimed structure of the inductor of the invention.

Claim 1 and therefore dependent claims 2-8 and 11-12 are therefore distinguished from the references of record and each of the aforementioned claim rejections under 35 U.S.C. § 102, 15 specifically the claim rejections in view of Yu '591, the claim rejections in view of Yu, et al. '704 and the claim rejections in view of Kobayashi, should be withdrawn. Claims 1-8 and 11-12 are in allowable form.

V. Claims 13-25

Claims 13-25 were apparently only rejected as being based on an inadequate specification 20 as discussed above. The objection to the specification for inadequacies, should be withdrawn as above. Claims 13-25 are distinguished from the references of record and are therefore in allowable form. Independent claim 13 recites the feature of "a shallow trench isolation region, formed in said substrate underneath said trace". None of the references of record teach or suggest this feature.

25 VI. Newly Added Claim 42

New independent claim 42 has now been added to recite the feature that the at least two deep wells of opposite conductivity type are not reverse biased. Each of the references of record

teaches that a reverse bias voltage is applied between the well or diffusion area and the substrate. Claim 42 is believed to be distinguished from the references of record and in allowable form.

CONCLUSION

Based on the foregoing, each of claims 1-8, 11-25 and 42 is in allowable form and the 5 application therefore in condition for allowance, which action is respectfully and expeditiously requested.

The Assistant Commissioner for Patents is hereby authorized to charge any additional fees or credit any excess payment that may be associated with this communication to deposit account 04-1679.

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Respectfully submitted,



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Attachments: Appendix with Replacement Drawing Sheets 1-20